

Zika virus serological test interpretation for *discordant* IgM results between commercial laboratory and public health laboratories

OVERALL RESULT ^a	COMMERCIAL LABORATORY	PUBLIC HEALTH LABORATORY TESTS			GUIDANCE
	Zika IgM positive ^{b,c}	Zika IgM negative ^b	Zika PRNT	Dengue PRNT	
No evidence of past or recent Zika virus infection	+	-	-	-	Findings suggest a false positive commercial Zika virus IgM test result. There is no laboratory evidence of either a current or past infection with Zika virus or dengue virus based on repeat testing at the Public Health Laboratory(ies). ^d
Past infection with Zika virus	+	-	+	-	Findings suggest the patient was infected with Zika virus at some point in the past. Use exposure dates to determine if the patient conceived or was pregnant at the time of exposure to Zika virus. If, exposure to Zika may have occurred during pregnancy, note the following recommendations: <ul style="list-style-type: none"> ▪ Prenatal management: Consider serial prenatal ultrasounds to evaluate for fetal abnormalities. Continue to monitor for ongoing risk of Zika virus exposure. ▪ Postnatal management: Please contact the DOHMH at the time of delivery to arrange for Zika virus testing of the infant and considerations for placental tissue testing.
Past infection with Zika virus and dengue virus	+	-	+	+	Findings suggest the patient was infected with a flavivirus (Zika and/or dengue) at some point in the past. Consider dengue IgM testing to determine if there is evidence of an acute dengue infection.
Past infection with dengue virus	+	-	-	+	Findings suggest your patient was exposed to dengue virus at some point in the past. Consider dengue IgM testing to determine if there is evidence of an acute dengue infection. It is unlikely that the patient has ever been infected with Zika virus. ^d

- a. Table refers to patients with a “Negative” or “Not Detected” result on NAAT, or for whom NAAT was not performed. A NAAT result of “Positive” or “Detected” for urine or serum provides confirmed evidence of infection with Zika virus UNLESS repeat NAAT on the same specimen at a public health laboratory is “Negative” or “Not Detected”. In these scenarios contact the NYC Department of Health for interpretation assistance.
- b. The Zika virus IgM assay is a screening test, therefore the final test interpretation depends on additional results from plaque-reduction neutralization test (PRNT). Wait for PRNT results before making any healthcare decisions. In New York City, all confirmatory PRNT testing is done at Wadsworth Center (WC) Laboratory. Commercial laboratories automatically forward specimens with a positive IgM result to WC where testing can take up to four weeks and PRNT results will be reported via the commercial laboratory to which the original specimen was submitted.
- c. Zika IgM positive results reported out as any of the following will be sent to WC for confirmatory testing: *Presumptive Zika Positive, Presumptive Zika IgM Positive, Possible Zika Positive, Presumptive Recent Zika Positive*
Specimens with the following Zika IgM results will not be sent to WC for further testing by PRNT: *Presumptive Other Flavivirus Positive, Presumptive Recent Zika Negative, Negative*
- d. Consider re-testing Zika IgM if specimen collected less than 8 days after illness onset.